OIPE #9 0590 0320

CRF Errors Corrected by th STIC Systems Branch

Serial Number: 09/873,881B

ENTERED

CRF Processing Dat: 3/18/2002
Edited by: [handwritten initials]
Verified by: [handwritten initials] (STIC staff)

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases wh re the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: ______
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other ______.
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: ______
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: ______
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: ______
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: ______
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: ______
- ☐ Deleted: __ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as ______.
- ☐ Inserted mandatory headings, specifically: ______
- ☐ Corrected an obvious error in the response, specifically: ______
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: ______
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: ______
- ☑ Other: inserted hard return; Seq. 19.

***Examiner: Th abov corrections must b communicated to th applicant in the first Office Action. DO NOT send a copy of this form.**

3/1/95

OIPE

RAW SEQUENCE LISTING DATE: 03/18/2002
PATENT APPLICATION: US/09/873,881B TIME: 08:30:47

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\03182002\I873881B.raw

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  3 <110> APPLICANT: Scott, Fred W.
  5 <120> TITLE OF INVENTION: Recombinant Multivalent Viral Vaccine
  7 <130> FILE REFERENCE: 18617.0016
  9 <140> CURRENT APPLICATION NUMBER: US 09/873,881B
 10 <141> CURRENT FILING DATE: 2001-06-04
 12 <150> PRIOR APPLICATION NUMBER: US 08/552,369
 13 <151> PRIOR FILING DATE: 1995-11-03
 15 <160> NUMBER OF SEQ ID NOS: 19
 17 <210> SEQ ID NO: 1
 18 <211> LENGTH: 2254
 19 <212> TYPE: DNA
 20 <213> ORGANISM: feline panleukopenia virus
W--> 21 <220> FEATURE:
 22 <223> OTHER INFORMATION:
 24 <400> SEQUENCE: 1
 25 atg agt gat gga gca gtt caa cca gac ggt ggt caa cct gct gtc    45
 26 Met Ser Asp Gly Ala Val Gln Pro Asp Gly Gly Gln Pro Ala Val
 27 1               5                  10                  15
 29 aga aat gaa aga gct aca gga tct ggg aac ggg tct gga ggc ggg    90
 30 Arg Asn Glu Arg Ala Thr Gly Ser Gly Asn Gly Ser Gly Gly Gly
 31                 20                  25                  30
 33 ggt ggt ggt ggt tct ggg ggt gtg ggg att tct acg ggt act ttc   135
 34 Gly Gly Gly Gly Ser Gly Gly Val Gly Ile Ser Thr Gly Thr Phe
 35                 35                  40                  45
 37 aat aat cag acg gaa ttt aaa ttt ttg gaa aac gga tgg gtg gaa   180
 38 Asn Asn Gln Thr Glu Phe Lys Phe Leu Glu Asn Gly Trp Val Glu
 39                 50                  55                  60
 41 atc aca gca aac tca agc aga ctt gta cat tta aat atg cca gaa   225
 42 Ile Thr Ala Asn Ser Ser Arg Leu Val His Leu Asn Met Pro Glu
 43                 65                  70                  75
 45 agt gaa aat tat aaa aga gta gtt gta aat aat atg gat aaa act   270
 47 Ser Glu Asn Tyr Lys Arg Val Val Val Asn Asn Met Asp Lys Thr
 48                 80                  85                  90
 50 gca gtt aaa gga aac atg gct tta gat gac act cat gta caa att   315
 51 Ala Val Lys Gly Asn Met Ala Leu Asp Asp Thr His Val Gln Ile
 52                 95                 100                 105
 54 gta aca cct tgg tca ttg gtt gat gca aat gct tgg gga gtt tgg   360
 55 Val Thr Pro Trp Ser Leu Val Asp Ala Asn Ala Trp Gly Val Trp
 56                110                 115                 120
 58 ttt aat cca gga gat tgg caa cta att gtt aat act atg agt gag   405
 59 Phe Asn Pro Gly Asp Trp Gln Leu Ile Val Asn Thr Met Ser Glu
 60                125                 130                 135
 62 ttg cat tta gtt agt ttt gaa caa gaa att ttt aat gtt gtt tta   450
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RAW SEQUENCE LISTING DATE: 03/18/2002
PATENT APPLICATION: US/09/873,881B TIME: 08:30:47

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\03182002\I873881B.raw

```
 63 Leu His Leu Val Ser Phe Glu Gln Glu Ile Phe Asn Val Val Leu
 64                 140                 145                 150
 66 aag act gtt tca gaa tct gct act cag cca cca act aaa gtt tat   495
 67 Lys Thr Val Ser Glu Ser Ala Thr Gln Pro Pro Thr Lys Val Tyr
 68                 155                 160                 165
 70 aat aat gat tta act gca tca ttg atg gtt gca tta gat agt aat   540
 71 Asn Asn Asp Leu Thr Ala Ser Leu Met Val Ala Leu Asp Ser Asn
 72                 170                 175                 180
 74 aat act atg cca ttt act cca gca gct atg aga tct gag aca ttg   585
 75 Asn Thr Met Pro Phe Thr Pro Ala Ala Met Arg Ser Glu Thr Leu
 76                 185                 190                 195
 78 ggt ttt tat cca tgg aaa cca acc ata cca act cca tgg aga tat   630
 79 Gly Phe Tyr Pro Trp Lys Pro Thr Ile Pro Thr Pro Trp Arg Tyr
 80                 200                 205                 210
 82 tat ttt caa tgg gat aga aca tta ata cca tct cat act gga act   675
 83 Tyr Phe Gln Trp Asp Arg Thr Leu Ile Pro Ser His Thr Gly Thr
 84                 215                 220                 225
 86 agt ggc aca cca aca aat ata tat cat ggt aca gat cca gat gat   720
 87 Ser Gly Thr Pro Thr Asn Ile Tyr His Gly Thr Asp Pro Asp Asp
 88                 230                 235                 240
 90 gtt caa ttt tat act att gaa aat tct gtg cca gta cac tta cta   765
 91 Val Gln Phe Tyr Thr Ile Glu Asn Ser Val Pro Val His Leu Leu
 92                 245                 250                 255
 94 aga aca ggt gat gaa ttt gct aca gga aca ttt ttt ttt gat tgt   810
 95 Arg Thr Gly Asp Glu Phe Ala Thr Gly Thr Phe Phe Phe Asp Cys
 96                 260                 265                 270
 98 aaa cca tgt aga cta aca cat aca tgg caa aca aac aga gca ttg   855
 99 Lys Pro Cys Arg Leu Thr His Thr Trp Gln Thr Asn Arg Ala Leu
100                 275                 280                 285
102 ggc tta cca cca ttt cta aat tct ttg cct caa tct gaa gga gct   900
103 Gly Leu Pro Pro Phe Leu Asn Ser Leu Pro Gln Ser Glu Gly Ala
104                 290                 295                 300
106 act aac ttt ggt gat ata gga gtt caa caa gat aaa aga cgt ggt   945
107 Thr Asn Phe Gly Asp Ile Gly Val Gln Gln Asp Lys Arg Arg Gly
108                 305                 310                 315
110 gta act caa atg gga aat aca gac tat att act gaa gct act att   990
111 Val Thr Gln Met Gly Asn Thr Asp Tyr Ile Thr Glu Ala Thr Ile
112                 320                 325                 330
114 atg aga cca gct gag gtt ggt tat agt gca cca tat tat tct ttt  1035
115 Met Arg Pro Ala Glu Val Gly Tyr Ser Ala Pro Tyr Tyr Ser Phe
116                 335                 340                 345
118 gaa gcg tct aca caa ggg cca ttt aaa ata cct att gca gca gga  1080
119 Glu Ala Ser Thr Gln Gly Pro Phe Lys Ile Pro Ile Ala Ala Gly
120                 350                 355                 360
122 cgg ggg gga gcg caa aca gat gaa aat caa gca gca gat ggt gat  1125
123 Arg Gly Gly Ala Gln Thr Asp Glu Asn Gln Ala Ala Asp Gly Asp
124                 365                 370                 375
126 cca aga tat gca ttt ggt aga caa cat ggt caa aaa act act aca  1170
127 Pro Arg Tyr Ala Phe Gly Arg Gln His Gly Gln Lys Thr Thr Thr
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RAW SEQUENCE LISTING DATE: 03/18/2002
PATENT APPLICATION: US/09/873,881B TIME: 08:30:47

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\03182002\I873881B.raw

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128                 380                 385                 390
130 aca gga gaa aca cct gag aga ttt aca tat ata gca cat caa gat  1215
131 Thr Gly Glu Thr Pro Glu Arg Phe Thr Tyr Ile Ala His Gln Asp
132                 395                 400                 405
134 aca gga aga tat cca gca gga gat tgg att caa aat att aac ttt  1260
135 Thr Gly Arg Tyr Pro Ala Gly Asp Trp Ile Gln Asn Ile Asn Phe
136                 410                 415                 420
138 aac ctt cct gta aca aat gat aat gta ttg cta cca aca gat cca  1305
139 Asn Leu Pro Val Thr Asn Asp Asn Val Leu Leu Pro Thr Asp Pro
140                 425                 430                 435
142 att gga ggt aaa aca gga atc aac tat act aat ata ttt aat act  1350
143 Ile Gly Gly Lys Thr Gly Ile Asn Tyr Thr Asn Ile Phe Asn Thr
144                 440                 445                 450
146 tat ggt cct tta act gca tta aat aat gta cca cca gtt tat cca  1395
147 Tyr Gly Pro Leu Thr Ala Leu Asn Asn Val Pro Pro Val Tyr Pro
148                 455                 460                 465
150 aat ggt caa att tgg gat aaa gaa ttt gat act gac tta aaa cca  1440
151 Asn Gly Gln Ile Trp Asp Lys Glu Phe Asp Thr Asp Leu Lys Pro
152                 470                 475                 480
154 aga ctt cat gta aat gca cca ttt gtt tgt caa aat aat tgt cct  1485
155 Arg Leu His Val Asn Ala Pro Phe Val Cys Gln Asn Asn Cys Pro
156                 485                 490                 495
158 ggt caa tta ttt gta aaa gtt gcg cct aat tta aca aat gaa tat  1530
159 Gly Gln Leu Phe Val Lys Val Ala Pro Asn Leu Thr Asn Glu Tyr
160                 500                 505                 510
162 gat cct gat gca tct gct aat atg tca aga att gta act tac tca  1575
163 Asp Pro Asp Ala Ser Ala Asn Met Ser Arg Ile Val Thr Tyr Ser
164                 515                 520                 525
166 gat ttt tgg tgg aaa ggt aaa tta gta ttt aaa gct aaa cta aga  1620
167 Asp Phe Trp Trp Lys Gly Lys Leu Val Phe Lys Ala Lys Leu Arg
168                 530                 535                 540
170 gca tct cat act tgg aat cca att caa caa atg agt att aat gta  1665
171 Ala Ser His Thr Trp Asn Pro Ile Gln Gln Met Ser Ile Asn Val
172                 545                 550                 555
174 gat aac caa ttt aac tat cta cca aat aat att gga gct atg aaa  1710
175 Asp Asn Gln Phe Asn Tyr Leu Pro Asn Asn Ile Gly Ala Met Lys
176                 560                 565                 570
178 att gta tat gaa aaa tct caa cta gca cct aga aaa tta tat      1752
179 Ile Val Tyr Glu Lys Ser Gln Leu Ala Pro Arg Lys Leu Tyr
180                 575                 580
182 taatatactt actatgtttt tatggttatt acatatcaac tagcacctag       1802
184 aaaattatat taatatactt actatgtttt tatgtttatt acatattatt       1852
186 ttaagattaa ttaaattaca acatagaaat attgtacttg tatttgatat       1902
188 aggatttaga aggtttgtta tatggtatac aataactgta agaaatagaa       1952
190 gaacatttag atcatggtta gtatggtata caataactgt aagaaataga       2002
192 agaacattta gatcatggtt agtagtttgt tttataaaat gtaattgtaa       2052
194 actattaatg tatgttgtta tggtgtgggt ggttggttgg tttgccctta       2102
196 gaatatgtta aggaccaaaa aaatcaataa aagacattta aaacttaatg       2152
198 gtctcgtata ctgtctataa ggtgaactaa ccttaccata agtatcaact       2202
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RAW SEQUENCE LISTING DATE: 03/18/2002
PATENT APPLICATION: US/09/873,881B TIME: 08:30:47

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\03182002\I873881B.raw

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200 tgtctttaag gggggggtgg gtgggagatg cacaatatca gtagactgac       2252
202 tg                                                           2254
206 <210> SEQ ID NO: 2
207 <211> LENGTH: 1575
208 <212> TYPE: DNA
209 <213> ORGANISM: rabies virus
211 <220> FEATURE:
212 <223> OTHER INFORMATION:
214 <400> SEQUENCE: 2
215 atg gtt cct cag gct ctc ctg ttt gta ccc ctt ctg gtt ttt        42
216 Met Val Pro Gln Ala Leu Leu Phe Val Pro Leu Leu Val Phe
217   1               5                  10
219 cca ttg tgt ttt ggg aaa ttc cct att tac acg ata cta gac        84
220 Pro Leu Cys Phe Gly Lys Phe Pro Ile Tyr Thr Ile Leu Asp
221  15                  20                  25
223 aag ctt ggt ccc tgg agc ccg att gac ata cat cac ctc agc       126
224 Lys Leu Gly Pro Trp Ser Pro Ile Asp Ile His His Leu Ser
225      30                  35                  40
227 tgc cca aac aat ttg gta gtg gag gac gaa gga tgc acc aac       168
228 Cys Pro Asn Asn Leu Val Val Glu Asp Glu Gly Cys Thr Asn
229          45                  50                  55
231 ctg tca ggg ttc tcc tac atg gaa ctt aaa gtt gga tac atc       210
232 Leu Ser Gly Phe Ser Tyr Met Glu Leu Lys Val Gly Tyr Ile
233              60                  65                  70
235 tta gcc ata aaa atg aac ggg ttc act tgc aca ggc gtt gtg       252
236 Leu Ala Ile Lys Met Asn Gly Phe Thr Cys Thr Gly Val Val
237                  75                  80
239 acg gag gct gaa acc tac act aac ttc gtt ggt tat gtc aca       294
240 Thr Glu Ala Glu Thr Tyr Thr Asn Phe Val Gly Tyr Val Thr
241  85                  90                  95
243 acc acg ttc aaa aga aag cat ttc cgc cca aca cca gat gca       336
244 Thr Thr Phe Lys Arg Lys His Phe Arg Pro Thr Pro Asp Ala
245     100                 105                 110
247 tgt aga gcc gcg tac aac tgg aag atg gcc ggt gac ccc aga       378
248 Cys Arg Ala Ala Tyr Asn Trp Lys Met Ala Gly Asp Pro Arg
249         115                 120                 125
251 tat gaa gag tct cta cac aat ccg tac cct gac tac cgc tgg       420
252 Tyr Glu Glu Ser Leu His Asn Pro Tyr Pro Asp Tyr Arg Trp
253             130                 135                 140
255 ctt cga act gta aaa acc acc aag gag tct ctc gtt atc ata       462
256 Leu Arg Thr Val Lys Thr Thr Lys Glu Ser Leu Val Ile Ile
257                 145                 150
259 tct cca agt gta gca gat ttg gac cca tat gac aga tcc ctt       504
260 Ser Pro Ser Val Ala Asp Leu Asp Pro Tyr Asp Arg Ser Leu
261 155                 160                 165
263 cac tcg agg gtc ttc cct agc ggg aag tgc tca gga gta gcg       546
264 His Ser Arg Val Phe Pro Ser Gly Lys Cys Ser Gly Val Ala
265     170                 175                 180
267 gtg tct tct acc tac tgc tcc act aac cac gat tac acc att       588
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/873,881B

DATE: 03/18/2002
TIME: 08:30:47

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\03182002\I873881B.raw

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268 Val Ser Ser Thr Tyr Cys Ser Thr Asn His Asp Tyr Thr Ile
269         185                 190                 195
271 tgg atg ccc gag aat ccg aga cta ggg atg tct tgt gac att      630
272 Trp Met Pro Glu Asn Pro Arg Leu Gly Met Ser Cys Asp Ile
273             200                 205                 210
275 ttt acc aat agt aga ggg aag aga gca tcc aaa ggg agt gag      672
276 Phe Thr Asn Ser Arg Gly Lys Arg Ala Ser Lys Gly Ser Glu
277                 215                 220
279 act tgc ggc ttt gta gat gaa aga ggc cta tat aag tct tta      714
280 Thr Cys Gly Phe Val Asp Glu Arg Gly Leu Tyr Lys Ser Leu
281 225                 230                 235
283 aaa gga gca tgc aaa ctc aag tta tgt gga gtt cta gga ctt      756
284 Lys Gly Ala Cys Lys Leu Lys Leu Cys Gly Val Leu Gly Leu
285     240                 245                 250
287 aga ctt atg gat gga aca tgg gtc gcg atg caa aca tca aat      798
288 Arg Leu Met Asp Gly Thr Trp Val Ala Met Gln Thr Ser Asn
289         255                 260                 265
291 gaa acc aaa tgg tgc gct ccc gat cag ttg gtg aac ctg cac      840
292 Glu Thr Lys Trp Cys Pro Pro Asp Gln Leu Val Asn Leu His
293             270                 275                 280
295 gac ttt cgc tca gac gaa att gag cac ctt gtt gta gag gag      882
296 Asp Phe Arg Ser Asp Glu Ile Glu His Leu Val Val Glu Glu
297                 285                 290
299 ttg gtc agg aag aga gag gag tgt ctg gat gca cta gag tcc      924
300 Leu Val Arg Lys Arg Glu Glu Cys Leu Asp Ala Leu Glu Ser
301 295                 300                 305
303 atc atg aca aac aag tca gtg agt ttc aga cgt ctc agt cat      966
304 Ile Met Thr Thr Lys Ser Val Ser Phe Arg Arg Leu Ser His
305     310                 315                 320
307 tta aga aaa ctt gtc cct ggg ttt gga aaa gca tat acc ata     1008
308 Leu Arg Lys Leu Val Pro Gly Phe Gly Lys Ala Tyr Thr Ile
309         325                 330                 335
311 ttc aac aag acc ttg atg gaa gcc gat gct cac tac aag tca     1050
312 Phe Asn Lys Thr Leu Met Glu Ala Asp Ala His Tyr Lys Ser
313             340                 345                 350
315 gtc aga act tgg aat gag atc ctc cct tca aaa ggg tgt tta     1092
316 Val Arg Thr Trp Asn Glu Ile Leu Pro Ser Lys Gly Cys Leu
317                 355                 360
319 aga gtt ggg ggg agg tgt cat cct cat gtg aac ggg gtg ttt     1134
320 Arg Val Gly Gly Arg Cys His Pro His Val Asn Gly Val Phe
321 365                 370                 375
323 ttc aat ggt ata ata tta gga cct gac ggc aat gtc tta atc     1176
324 Phe Asn Gly Ile Ile Leu Gly Pro Asp Gly Asn Val Leu Ile
325     380                 385                 390
327 cca gag atg caa tca tcc ctc ctc cag caa cat atg gag ttg     1218
328 Pro Glu Met Gln Ser Ser Leu Leu Gln Gln His Met Glu Leu
329         395                 400                 405
331 ttg gaa tcc tcg gtt atc ccc ctt gtg cac ccc ctg gca gac     1260
332 Leu Glu Ser Ser Val Ile Pro Leu Val His Pro Leu Ala Asp
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VERIFICATION SUMMARY
PATENT APPLICATION: US/09/873,881B

DATE: 03/18/2002
TIME: 08:30:48

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\03182002\I873881B.raw

L:21 M:283 W: Missing Blank Line separator, <220> field identifier
L:912 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/873,881B

DATE: 03/06/2002
TIME: 10:20:34

mar

Input Set : A:\corrected sequence listing for Scott.txt
Output Set: N:\CRF3\03062002\I873881B.raw

Does Not Comply
Corrected Diskette Needed

mailed hard return

3 <110> APPLICANT: Scott, Fred W.
5 <120> TITLE OF INVENTION: Recombinant Multivalent Viral Vaccine
7 <130> FILE REFERENCE: 18617.0016
9 <140> CURRENT APPLICATION NUMBER: US 09/873,881B
10 <141> CURRENT FILING DATE: 2001-06-04
12 <150> PRIOR APPLICATION NUMBER: US 08/552,369
13 <151> PRIOR FILING DATE: 1995-11-03
15 <160> NUMBER OF SEQ ID NOS: 19

ERRORED SEQUENCES

932 <210> SEQ ID NO: 19
933 <211> LENGTH: 1979
934 <212> TYPE: DNA
935 <213> ORGANISM: feline leukemia virus
937 <220> FEATURE:
938 <223> OTHER INFORMATION:
940 <400> SEQUENCE: 19
941 accaccaatc aagacctctc ggacagcccc agctcagacg atccatcaag 50
943 atg gaa agt cca acg cac cca aaa ccc tct aaa gat aag act ctc 95
944 Met Glu Ser Pro Thr His Pro Lys Pro Ser Lys Asp Lys Thr Leu
945 1 5 10 15
947 tcg tgg aac tta gcg ttt ctg gtg ggg atc tta ttt aca ata gac 140
948 Ser Trp Asn Leu Ala Phe Leu Val Gly Ile Leu Phe Thr Ile Asp
949 20 25 30
951 ata gga atg gcc aat cct agt cca cac caa ata tat aat gta act 185
952 Ile Gly Met Ala Asn Pro Ser Pro His Gln Ile Tyr Asn Val Thr
953 35 40 45
955 tgg gta ata acc aat gta caa act aac acc caa gct aac gcc acc 230
956 Trp Val Ile Thr Asn Val Gln Thr Asn Thr Gln Ala Asn Ala Thr
957 50 55 60
959 tct atg tta gga acc tta acc gat gcc tac cct acc cta cat gtt 275
960 Ser Met Leu Gly Thr Leu Thr Asp Ala Tyr Pro Thr Leu His Val
961 65 70 75
963 gac tta tgt gac cta gtg gga gac acc tgg gaa cct ata gtc cta 320
964 Asp Leu Cys Asp Leu Val Gly Asp Thr Trp Glu Pro Ile Val Leu
965 80 85 90
967 aac cca acc aat gta aaa cac ggg gca cgt tac tcc tcc tca aaa 365
968 Asn Pro Thr Asn Val Lys His Gly Ala Arg Tyr Ser Ser Ser Lys
969 95 100 105
971 tat gga tgt aaa act aca gat aga aaa aaa cag caa cag aca tac 410
972 Tyr Gly Cys Lys Thr Thr Asp Arg Lys Lys Gln Gln Gln Thr Tyr

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/873,881B

DATE: 03/06/2002
TIME: 10:20:34

Input Set : A:\corrected sequence listing for Scott.txt
Output Set: N:\CRF3\03062002\I873881B.raw

```
973                 110                 115                 120
975 ccc ttt tac gtc tgc ccc gga cat gcc ccc tcg ttg ggg cca aag   455
976 Pro Phe Tyr Val Cys Pro Gly His Ala Pro Ser Leu Gly Pro Lys
977                 125                 130                 135
979 gga aca cat tgt gga ggg gca caa gat ggg ttt tgt gcc gca tgg   500
980 Gly Thr His Cys Gly Gly Ala Gln Asp Gly Phe Cys Ala Ala Trp
981                 140                 145                 150
983 gga tgt gag acc acc gga gaa gct tgg tgg aag ccc acc tcc tca   545
984 Gly Cys Glu Thr Thr Gly Glu Thr Trp Trp Lys Pro Thr Ser Ser
985                 155                 160                 165
987 tgg gac tat atc aca gta aaa aga ggg agt agt cag gac aat agc   590
988 Trp Asp Tyr Ile Thr Val Lys Arg Gly Ser Ser Gln Asp Asn Ser
989                 170                 175                 180
991 tgt gag gga aaa tgc aac ccc ctg gtt ttg cag ttc acc cag aag   635
992 Cys Glu Gly Lys Cys Asn Pro Leu Val Leu Gln Phe Thr Gln Lys
993                 185                 190                 195
995 gga aga caa gcc tct tgg gac gga cct aag atg tgg gga ttg cga   680
996 Gly Arg Gln Ala Ser Trp Asp Gly Pro Lys Met Trp Gly Leu Arg
997                 200                 205                 210
999 cta tac cgt aca gga tat gac cct atc gct tta ttc acg gtg tcc   725
1000 Leu Tyr Arg Thr Gly Tyr Asp Pro Ile Ala Leu Phe Thr Val Ser
1001                215                 220                 225
1003 cgg cag gta tca acc att acg ccg cct cag gca atg gga cca aac   770
1004 Arg Gln Val Ser Thr Ile Thr Pro Pro Gln Ala Met Gly Pro Asn
1005                230                 235                 240
1007 cta gtc tta cct gat caa aaa ccc cca tcc cga caa tct caa aca   815
1008 Leu Val Leu Pro Asp Gln Lys Pro Pro Ser Arg Gln Ser Gln Thr
1009                245                 250                 255
1011 ggg tcc aaa gtg gcg acc cag agg ccc caa acg aat gaa agc gcc   860
1012 Gly Ser Lys Val Ala Thr Gln Arg Pro Gln Thr Asn Glu Ser Ala
1013                260                 265                 270
1015 cca agg tct gtt gcc ccc acc acc atg ggt ccc aaa cgg att ggg   905
1016 Pro Arg Ser Val Ala Pro Thr Thr Met Gly Pro Lys Arg Ile Gly
1017                275                 280                 285
1019 acc gga gat agg tta ata aat tta gta caa ggg aca tac cta gcc   950
1020 Thr Gly Asp Arg Leu Ile Asn Leu Val Gln Gly Thr Tyr Leu Ala
1021                290                 295                 300
1023 tta aat gcc acc gac ccc aac aaa act aaa gac tgt tgg ctc tgc   995
1024 Leu Asn Ala Thr Asp Pro Asn Lys Thr Lys Asp Cys Trp Leu Cys
1025                305                 310                 315
1027 ctg gtt tct cga cca ccc tat tac gaa ggg att gca atc tta ggt  1040
1028 Leu Val Ser Arg Pro Pro Tyr Tyr Glu Gly Ile Ala Ile Leu Gly
1029                320                 325                 330
1031 acc tac agc aac caa aca aac ccc ccc cca tcc tgc cta tct act  1085
1032 Asn Tyr Ser Asn Gln Thr Asn Pro Pro Pro Ser Cys Leu Ser Ile
1033                335                 340                 345
1035 ccg caa cac aaa cta act ata tct gaa gta tca ggg caa gga atg  1130
1036 Pro Gln His Lys Leu Thr Ile Ser Glu Val Ser Gly Gln Gly Met
1037                350                 355                 360
```

RAW SEQUENCE LISTING DATE: 03/06/2002
PATENT APPLICATION: US/09/873,881B TIME: 10:20:34

Input Set : A:\corrected sequence listing for Scott.txt
Output Set: N:\CRF3\03062002\I873881B.raw

```
1039 tgc ata ggg act gtt cct aaa acc cac cag gct ttg tgc aat aag  1175
1040 Cys Ile Gly Thr Val Pro Lys Thr His Gln Ala Leu Cys Asn Lys
1041                 365                 370                 375
1043 aca caa cag gga cat aca ggg gcg cac tat cta gcc gcc ccc aac  1220
1044 Thr Gln Gln Gly His Thr Gly Ala His Tyr Leu Ala Ala Pro Asn
1045                 380                 385                 390
1047 ggc acc tat tgg gcc tgt aac act gga ctc acc cca tgc att tcc  1265
1048 Gly Thr Tyr Trp Ala Cys Asn Thr Gly Leu Thr Pro Cys Ile Ser
1049                 395                 400                 405
1051 atg gcg gtg ctc aat tgg acc tct gat ttt tgt gtc tta atc gaa  1310
1052 Met Ala Val Leu Asn Trp Thr Ser Asp Phe Cys Val Leu Ile Glu
1053                 410                 415                 420
1055 tta tgg ccc aga gtg act tac cat caa ccc gaa tat gtg tac aca  1355
1056 Leu Trp Pro Arg Val Thr Tyr His Gln Pro Glu Tyr Val Tyr Thr
1057                 425                 430                 435
1059 cat ttt gcc aaa gct gtc agg ttc cga aga gaa cca ata tca cta  1400
1060 His Phe Ala Lys Ala Val Arg Phe Arg Arg Glu Pro Ile Ser Leu
1061                 440                 445                 450
1063 acg gtt gcc ctt atg ttg gga gga ctt act gta ggg ggc ata gcc  1445
1064 Thr Val Ala Leu Met Leu Gly Gly Leu Thr Val Gly Gly Ile Ala
1065                 455                 460                 465
1067 gcg ggg gtc gga aca ggg act aaa gcc ctc ctt gaa aca gcc cag  1490
1068 Ala Gly Val Gly Thr Gly Thr Lys Ala Leu Leu Glu Thr Ala Gln
1069                 470                 475                 480
1071 ttc aga caa cta caa atg gcc atg cac aca gac atc cag gcc cta  1535
1072 Phe Arg Gln Leu Gln Met Ala Met His Thr Asp Ile Gln Ala Leu
1073                 485                 490                 495
1075 gaa gaa tca att agt gcc tta gaa aag tcc ctg acc tcc ctt tct  1580
1076 Glu Glu Ser Ile Ser Ala Leu Glu Lys Ser Leu Thr Ser Leu Ser
1077                 500                 505                 510
1079 gaa gta gtc tta caa aac aga cgg ggc cta gat att cta ttc tta  1625
1080 Glu Val Val Leu Gln Asn Arg Arg Glu Leu Asp Ile Leu Phe Leu
1081                 515                 520                 525
1083 caa gag gga ggg ctc tgt gcc gca ttg aaa gaa gaa tgt tgc ttc  1670
1084 Gln Glu Gly Gly Leu Cys Ala Ala Leu Lys Glu Glu Cys Cys Phe
1085                 530                 535                 540
1087 tat gcg gat cac acc gga ctc gtc cga gac aat atg gcc aaa tta  1715
1088 Tyr Ala Asp His Thr Gly Leu Val Arg Asp Asn Met Ala Lys Leu
1089                 545                 550                 555
1091 aga gaa aga cta aaa cag cgg caa caa ctg ttt gac tcc caa cag  1760
1092 Arg Glu Arg Leu Lys Gln Arg Gln Gln Leu Phe Asp Ser Gln Gln
1093                 560                 565                 570
1095 gga tgg ttt gaa gga tgg ttc aac aag tcc ccc tgg ttt aca acc  1805
1096 Gly Trp Phe Glu Gly Trp Phe Asn Lys Ser Pro Trp Phe Thr Thr
1097                 575                 580                 585
1099 cta att tcc tcc att atg ggc ccc tta cta atc cta ctc cta att  1850
1100 Leu Ile Ser Ser Ile Met Gly Pro Leu Leu Ile Leu Leu Leu Ile
1101                 590                 595                 600
W--> 1103
ctc ctc ttc ggc cca tgc atc ctt aac cga tta gta caa ttc gta  1895 Leu Leu Phe Gly Pro Cys Ile I
```

insert hard return

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```
W--> 1104                605                 610                 615
W--> 1106
aaa gac aga ata tct gtg gta cag gct tta att tta acc caa cag  1940 Lys Asp Arg Ile Ser Val Val G
W--> 1107                620                 625                 630
E--> 1109 tac caa cag ata aag caa tac gat ccg gac cga cca tga        1979
     1110 Tyr Gln Gln Ile Lys Gln Tyr Asp Pro Asp Arg Pro
E--> 1111                635                 640
```